

## REMARKS

Claims 1-23 were pending.

Claim 6 is withdrawn from consideration.

Claims 1-5 and 7-23 are rejected.

Claims 2, 19 and 22 are amended.

Claims 20 and 23 are cancelled.

### **Amended claims**

Claims 2, 19 and 20 are objected to under 37 CFR 1.75(c) as not further limiting the subject matter of a previous claim.

Claim 2 is amended to delete "three-dimensional workpiece".

Claim 19 is amended to delete the phrase "bringin into contact".

Claim 20 is cancelled.

Thus all of the examiners claim objections under 37 CFR 1.75 (c ) are overcome.

No new matter is added

### **Election/Restriction**

Applicants affirm the election of the invention of group A, claims 1-22.

On March 25, 2009 applicants further elected the photoinitiator species found in example 2 of the specification and polypropylene as the substrate. The examiner asserts that this election of species reads upon claims 1-5 and 7-22 and therefore further withdrew claim 6.

However, applicants point out that the photoinitiator of example 2 is a hydroxyalkylphenone encompassed by claim 6 and therefore the species election reads upon claim 6. Thus the applicant respectfully request examiner to examine claim 6 with claims 1-5 and 7-22 on the merits.

Upon allowance of the claims 1-5 and 7-22 to the method for the reasons and evidence submitted below, applicants will in any case request that the examiner rejoin claim 6 as it contains all of the limitations of claim 1.

### 35 USC 103(a)

Claims 1-17 and 19-22 are rejected under 35 USC 103(a) as being unpatentable over Bauer et al WO-00/24527, as literally translated in US 6548121.

Comparison of US 6548121 and Present Application

	<b>WO 00/24257 = US 6548121</b>	<b>Application</b>
	Process for the production of a strongly adherent coating on an inorganic or organic substrate	A method for forming a coating on an inorganic or organic substrate
<b>① Priming</b>	<p><b>(a)</b> plasma-, corona-treatment, or irradiation with high energy UV- or electron radiation</p> <p><b>(b)</b> application of one or more ethylenically unsaturated photoinitiators</p> <p>at normal pressure or under vacuum (<i>specific examples: only vacuum</i>)</p> <p>leave the photoinitiators to react with the radicals generated on the substrate</p>	<p><b>(a)</b> a low-temperature plasma, a corona discharge, high-energy radiation and/or a flame treatment on the inorganic or organic substrate</p> <p><b>(b)</b> application of</p> <p>1.) at least one activatable initiator or</p> <p>2.) at least one activatable initiator and at least one ethylenically unsaturated compound</p> <p>in the form of a melt, solution, suspension or emulsion</p> <p>there being incorporated in the activatable initiator and/or the ethylenically unsaturated compound at least one group that interacts with a subsequently applied coating or reacts with groups contained therein</p> <p><b>(c)</b> the coated substrate is heated <u>and/or</u> is irradiated with electromagnetic waves</p>
<b>② final coating</b>	<p><b>(c1)</b> application of a composition comprising at least one unsaturated monomer or oligomer curing with UV/VIS radiation</p> <p>→ <i>conventional UV-formulation</i></p> <p><b>OR</b></p> <p><b>(c2)</b> deposition of a metal, semi-metal or metal oxide from the gasphase in the</p>	<p><b>(d)</b> the pretreated substrate is provided with the further coating which contains reactive groups that react with those of the adhesion promoter layer and/or interact with the adhesion promoter layer</p>

	presence of UV-light	
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Bauer teaches a process for producing a coating on an organic or inorganic substrate in order to promote adhesion. Examiner believes Bauer to teach steps a) and b) essentially as claimed. However, unlike the present step c) Bauer teaches performing the irradiation step **after depositing the further coating layer**. Examiner believes this difference to be only a change in the order of steps which is prima facie obvious in the absence of new or unexpected results.

For example in Bauer, prepares a primer layer by pretreating the surface with corona discharge etc, followed by applying photo initiators containing ethylenically unsaturated groups and allowing them to react with the surface. Onto this primer layer is applied a coating containing monomers which is then cured.

In the instant case, a primer layer is prepared by pretreating the surface with corona discharge etc, followed by applying at least one activatable initiator or at least one activatable initiator and at least one ethyleneically unstaturated compound (there must additionally be in the initiator or the ethylenically unsaturated compound at least one group that interacts with a subsequently applied coating, with the effect of promoting adhesion). This coated substrate is heated and/or irradiated with electromagnetic waves forming an adhesion promoter layer. Onto this irradiated adhesion promoter layer is applied a further coating containing reactive groups.

Attached is a Declaration under rule 132 signed by Stephan Ilg which provides data showing the difference between the Bauer processes and the present process. This Declaration under rule 132 has previously been submitted in the prosecution of US Serial No. 10/556609 (cited in a double patenting rejection below). Applicants attach a copy of the same Declaration for the examiner's convenience.

In the experiments, a polypropylene film is subjected to a corona treatment and then coated with a composition comprising a photo initiator (activatable initiator) and a polyethyleneglycol diacrylate (ethylenically unsaturated compound). In one case the coated film is irradiated and printed on using a UV curable ink, in another case, the coated film is printed on using the ink without first irradiating the coating layer. Each printed sample was then cured.

When following the instant process, which included irradiation of the primer layer (adhesion promoter layer), good adhesion of the ink was obtained; however, when following the process of Bauer, wherein the primer layer is not irradiated, no ink adhesion was observed.

Applicants respectfully submit that the processing steps of the instantly amended claims are clearly different and unobvious from those of Bauer. Bauer makes no suggestion at all to prime the coating before application of a further coating. The basis of the examiner's believe that the present invention is obvious over Bauer has been disproved. The activation of the coated substrate via heat and/ or irradiation does indeed lead to a different and substantially better result.

Applicants submit that the rejections under 35 USC 103(a) as obvious over Bauer, US 6,548,121 are addressed and are overcome and kindly ask that the examiner reconsider and withdraw the rejections.

**Claim 18 is rejected under 35 USC 103(a) as being unpatentable over Bauer et al (US 6548121) as applied to claim 1 above, and further in view of Kohler, US 6251963.**

Examiner states that Bauer teaches that the method is used for forming photoinitiator layers for image forming resist coatings but does not say how such images are formed by resist technology.

Bauer does not suggest or teach the step c) of the instant claim. The submitted Declaration clearly shows that step c) irradiation with electromagnetic waves of the coated substrate formed in b) leads to an improved promoter layer leading to good adhesion of a further coating. Kohler does not make up for the deficiencies of Bauer.

Thus the claimed method is unobvious in light of both references.

### **Double Patenting**

Applicants wish to postpone the submitting of terminal disclaimers for the cited obviousness-type double patenting rejections until the obviousness rejections are resolved. At that time the state of the claims will be known and the suitability of such disclaimers can then be determined.

Reconsideration and withdrawal of the rejection of claims 1-17 and 19-22 is respectfully solicited in light of the remarks, amendments *supra* and submitted Declaration.

Since there are no other grounds of objection or rejection, passage of this application to issue with claims 1-17 and 19-22 is earnestly solicited.

Applicants submit that the present application is in condition for allowance. In the event that minor amendments will further prosecution, Applicants request that the examiner contact the undersigned representative.

Respectfully submitted,



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Enclosure: Petition for one month extension of time and Copy of Declaration under 132.